



## Filing Receipt

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**PROJECT NO. 51840**

RULEMAKING ESTABLISHING	§	PUBLIC UTILITY COMMISSION
ELECTRIC WEATHERIZATION	§	
STANDARDS	§	OF TEXAS

**COMMENTS OF EXELON GENERATION COMPANY, LLC**

Exelon Generation Company, LLC (“Exelon”)<sup>1</sup> respectfully files these Comments with the Public Utility Commission of Texas (“Commission” or “PUC”) addressing certain aspects of proposed new Texas Administrative Code (TAC) §25.55 filed by staff of the PUC (“Staff”), as well as responding to specific questions posed by Staff.

Staff’s filing, and questions posed, relate to providers of electric generation service as well as transmission service providers. Exelon is limiting its comments to electric generation service. Exelon takes no position with respect to transmission service providers.

**EXECUTIVE SUMMARY**

The first step in improving reliability throughout the ERCOT grid so that Texans do not face extended outages and the associated harms experienced during Winter Storm Uri is by developing a system-wide reliability standard. Exelon commented in detail on the need for a reliability standard -- which essentially identifies what “reliability” truly means to the State -- in its earlier comments in this Project.<sup>2</sup> That is what the legislature requires, and it is only by establishing the desired level of reliability from a system-wide perspective can the package of

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<sup>1</sup> Exelon Generation Company, LLC, through subsidiaries, owns 3,620 MWs of gas-fired capacity and 87 MWs of wind power in Texas. Exelon Generation Company, LLC also provides wholesale supply to a number of Texas cooperatives and municipalities.

<sup>2</sup>Comments of Exelon Generation, LLC, Project No. 51840, June 23, 2021.

reforms be identified that are needed to bring reliability to the desired level for Texas. Without identifying an ERCOT system-wide reliability goal to be achieved, there is no clear means of measuring success now and into the future, and no ability to see where gaps may exist and how to most cost-effectively fill those gaps.

Although the discussion draft repeatedly uses the phrase “reliability standard”, weatherization requirements being imposed on individual generators are not the same as a reliability standard. Implementing weatherization measures alone will not solve Texas’ reliability issues. Rather, a number of significant changes are desperately needed to ensure that sufficient firm dispatchable generation exists when needed, saving the citizens of Texas from suffering another February 2021. Electric generation weatherization measures are an important piece of the reliability equation, to be sure, but the Commission should pursue development of a true system-wide reliability standard as it contemplates other reforms.

On the narrow topic presented regarding electric generation weatherization measures, there are several significant questions and issues in the discussion draft that need to be addressed. Ultimately, weatherization requirements should meet certain fundamental criteria. First, they should be based on good engineering practice, satisfying the system needs under different types of weather conditions. Second, they should be based on economically rational investment in electric generation resources, based on unit characteristics. Third, implementation deadlines should be consistent with good utility practice. What is economically rational investment, under time frames that are consistent with good utility practice, and meeting the system needs under good engineering practice, cannot be known until electric generators know the expectations, which is after the weather study is approved. Based on those principles, Exelon makes the following recommendations:

1. The mechanics of the weather study should be clarified, to identify the set of weather conditions at issue, and to explain how statistical probabilities of various weather conditions in each ERCOT sub-region will be factored into the weatherization requirements.
2. The earliest compliance deadline should be at least 11 months after the Commission approves the weather study, to provide electric generators sufficient ability to understand the expectations, identify appropriate engineering measures, and have the necessary equipment installed or work performed.
3. The rule should provide greater assurance to electric generators regarding extensions of the deadline in whole or in part when confronted by real-world delays or materials conditions issues, using a commercially reasonable standard, and focusing on what can be done, on time, cost-effectively.
4. Weatherization requirements and implementation deadlines should be tailored to an electric generator's characteristics, with newer plants having the first deadline and older plants having the final deadline.
5. Staff should clarify that Enhanced Reliability is not intended to meet SB 3's mandate for certain seasonal products.
6. The rule should contain language that electric generators are entitled to cost recovery for implementation of weatherization measures.

## **BACKGROUND AND INTRODUCTION**

In the aftermath of Winter Storm Uri, Exelon is evaluating its electric generating resources and taking certain actions, irrespective of any changes in the law or in ERCOT protocols. Establishment of appropriate cost recovery will allow us to evaluate potential additional measures, based on appropriate consideration of the capabilities of the specific generating resources.

On July 19, 2021, Staff filed a draft of new Texas Administrative Code (TAC) §25.55, which it indicated was “designed to implement weather emergency preparedness measures for generation entities and transmission service providers in ERCOT, as required by Senate Bill 3, 87<sup>th</sup> Legislature Session (Regular Session)”. Along with the discussion draft, Staff requested comments on the following questions:

1. What is the availability of statistically reliable weather information from, e.g. the American Society of Heating, Refrigeration and Air Conditioning

Engineers; National Weather Service; or other sources for the ERCOT power region? Please share the source of that information.

2. Do existing market-based mechanisms provide sufficient opportunity for cost recovery to meet the weather reliability standards proposed in the discussion draft? If not, what cost recovery mechanisms should be included in the proposed rule?

It is not possible to answer Staff's second question without knowing the actual expectations, the associated costs, and the market construct under which electric generators will be operating. The weatherization measures that are ultimately required will determine costs and cost-recovery issues. For instance, will the results be such that a thermal plant is required to be fully enclosed to meet winter conditions, or will something less be required? In addition to the substantial cost of enclosing an electric generating resource, enclosure traps heat. If an electric generating resource would need to be fully enclosed in order to meet the winter requirements, having equipment within a structure during the summer increases the temperature and potential humidity, which runs directly counter to what is needed for reliability when the temperature reaches 100 degrees, which may be close to 100 days in number in any given year.

Overall, a collective understanding of what the required weather standard is will determine the feasibility and cost-effectiveness of meeting the expectations, and the timeline to implement such measures or the need for either a delay in implementation or potential exception. What will be required, and the associated costs, cannot reasonably be known by electric generators until after ERCOT conducts its weather study, and the PUCT reviews and adopts it. One cannot evaluate cost-recovery without knowing the costs themselves. Staff asked whether or not the current Market-Based Mechanisms provides adequate cost recovery for weatherization measures. However, there are a number of significant changes to the current market design being considered, several of which could be implemented. There must be cost recovery under the market design

that will be in place when weatherization measures are required to be in place, which may be very different than the market-based mechanisms that are in place today.

## **RECOMMENDATIONS AND DISCUSSION**

### **A. Base Weatherization Requirements On a Reliability Standard**

Under the law, an electric generator is required to implement weatherization emergency measures based on reliability standards adopted by the Commission. Senate Bill 3 (“SB 3”), which was passed by the Texas Legislature and signed into law by Governor Abbott on June 8, 2021, includes the following relevant excerpt (emphasis added):

Sec. 35.0021. WEATHER EMERGENCY PREPAREDNESS.

(a) This section applies only to a municipally owned utility, electric cooperative, power generation company, or exempt wholesale generator that sells electric energy at wholesale in the ERCOT power region.

(b) The commission by rule shall require each provider of electric generation service described by Subsection (a) to implement measures to prepare the provider's generation assets to provide adequate electric generation service during a weather emergency **according to reliability standards adopted by the commission**. In adopting the rules, the commission shall take into consideration weather predictions produced by the office of the state climatologist.

However, the proposed rule creates a one-size-fits-all requirement for weatherization, applicable to each and every generator in a given weather zone. The proposed rule does not approach weatherization standards based on an ERCOT system-wide perspective, which is how reliability is approached by NERC and in every other regional electric market. Instead, the proposed rule effectively imposes an individual reliability standard on resources in the ERCOT footprint, without regard to characteristics of the unit, costs, or any other consideration, and without the benefit of an ERCOT system-wide reliability standard.

(1) Basic weather reliability standard. A generation entity must maintain weather preparation measures that reasonably ensure that its resource can provide service at the resource's applicable rated capability as defined by ERCOT under the 95th percentile of each of the extreme weather scenarios specified in the weather study approved by the commission under subsection (c) of this section.

(2) Enhanced weather reliability service standard. A generation entity may elect to maintain weather preparation measures that reasonably ensure its resource can provide service at the resource's applicable rated capability as defined by ERCOT under the 98th percentile of each of the extreme weather scenarios specified in the weather study approved by the commission under subsection (c) of this section. A resource that meets this standard may qualify to provide an enhanced weather reliability service procured by ERCOT.

(3) Black Start Service (BSS) weather reliability standard. For a resource that provides BSS, a generation entity must maintain weather preparation measures that reasonably ensure the resource can provide service at the resource's applicable rated capability under the 99.7th percentile of the extreme weather scenarios specified in the weather study approved by the commission under subsection (c) of this section.<sup>3</sup>

## **B. Clarify The Weather Study**

The weather study criteria, and potential results, need clarification. The discussion draft related to the weather study criteria reads as follows:

(1) Weather study criteria. The weather study must include statistical probabilities for a range of weather scenarios in the 95<sup>th</sup>, 98<sup>th</sup>, and 99<sup>th</sup> percentile probabilities for the established weather zones. The weather study must address a comprehensive range of weather event scenarios that may impact transmission and generation performance in the ERCOT power region. These scenarios must include, at a minimum, parameters for high and low temperatures, wind, humidity, precipitation, and duration.<sup>4</sup>

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<sup>3</sup> 25.55(d)(1).

<sup>4</sup> 16 TAC 25.55(c)(1).

First, it is unclear what “statistical probabilities for a range of weather scenarios in the 95<sup>th</sup>, 98<sup>th</sup>, and 99<sup>th</sup> percentile probabilities for the established weather zones” means. Is the study designed to look at high and low temperatures, and low wind chill, for example, over a specified period of time? Is “precipitation” intended to look at drought conditions? What is the period of time being evaluated, and how was the appropriate period determined? Is it using historical data or a combination of historical and forecasted data, and from what source(s)? If using forecasted data, how has the accuracy of that data been evaluated, and by whom?

After addressing all of those questions, how is statistical probability of a weather scenario factored in for these “extreme weather events”, to use the discussion draft terminology? For instance, if the statistical probability of the temperature dropping to a low of 32 degrees in a given weather zone is 10% for 1 day every 10 years, how does that impact the expectations that an electric generator in that weather region would have to meet? Additionally, the range of weather scenarios is unlimited by the draft rule, and there appears no criteria for adding new weather scenarios not already identified. The greater the number of scenarios, the greater the potential measures needed to meet the rule. With that comes greater costs and greater difficulty in meeting the new requirements.

As written, the study is opaque. Given the uncertainty of the study results, electric generators cannot predict engineering solutions, costs, and determine appropriate cost recovery. Nor can electric generators determine a realistic timeline for implementing measures. But more importantly, even after the study is complete, we will not know the impact on reliability, and what benefits the weatherization measures will provide.



### **C. Adjust The Initial Compliance Deadline**

The initial compliance deadline draft should be modified. ERCOT must file the study itself by January 1, 2022. According to the discussion draft, every electric generator over 650MW nameplate capacity has to meet new requirements and have measures in effect by November 22, 2022. . For the reasons explained below, this is unrealistic.

The discussion draft indicates that the weather study is to be approved by the PUCT. There is no indication of the process or timing for such review and approval. Electric generators and other parties must be able to comment on and challenge the study, but there is no mention of a transparent public process in the draft rule, nor a proposed deadline for PUCT action.

Electric generators will not reasonably know expectations until after the PUCT has approved the weather study. Only then can an electric generator begin the work to identify the measures necessary based on the study and understand the potential impacts of the study on the electric generator's costs and resources. After identifying the measures needed, the electric generator must then evaluate how to modify its generating plant in order to achieve the standards established by the weather study. This will require an engineering analysis, followed by procurement of equipment and performance of the work. Electric generators will be simultaneously competing for the same resources – both equipment and third--party installers -- to implement the measures. Once implemented, electric generators will once again have to compete for the same resources – this time third-party engineers - to conduct a review of the measures implemented and, based on the results of that review, potentially make alterations.

It is not difficult to imagine the practical difficulty for generators over 650MW of nameplate capacity to meet a November 30, 2022 deadline. Requiring generators to complete this work on such an accelerated timeframe is not only impractical but could ultimately compromise

reliability or raise other issues (for example, if it forced generators to use less skilled contractors or otherwise rush the work). Rather than a firm deadline by date, Exelon recommends that the initial compliance deadline for the first set of electric generators be no earlier than 11 months after the PUCT approves the weather study. Additionally, rather than imposing the implementation deadline by electric generator size alone, the rule should stagger implementation deadlines based on two additional criteria:

1. The level of reliability provided, starting with Black Start units; and.
2. The age of the unit, with units built after 1999 having earlier implementation deadlines.

**D. Grant Extension Requests Using Commercially Reasonable Standard**

The draft rule should also provide greater assurance to electric generators regarding extensions of the deadline when confronted by real-world delays and material condition issues. The proposed rule instead establishes something that may be close to a strict liability standard.

Extension of deadline. A generation entity may petition the commission to extend the implementation deadline for a generation resource. The commission may approve the petition with or without conditions if the generation entity demonstrates that it used best efforts to meet the deadline.<sup>5</sup>

First, the draft rule requires “best efforts” in order to have even a chance of obtaining an extension. In other words, the electric generator must undertake every effort, regardless of cost, to meet the deadline. That is a potentially impossible standard, considering the number of variables that likely affect each individual measure that an electric generator intends to implement, many of which are not in the control of the electric generator itself (including the uncertainty of whether ERCOT approves an outage(s) to perform the work). A more appropriate standard would be “commercially reasonable” efforts. Alternatively, the PUCT should confirm that exorbitant costs, lack of

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<sup>5</sup> 16 TAC 25.55(e)(4).

sufficient outage time approved, and lack of qualified skilled labor, would all meet the “good cause” exception to a “best efforts” requirement.

Moreover, as written, if the generation entity in fact demonstrates that it used “best efforts” to meet the deadline but fell short of that goal, the PUCT’s grant of an extension remains purely discretionary. Meanwhile, an electric generators’ inability to have in place each and every measure to satisfy the rule by the arbitrary deadline subjects the electric generator to the possibility of a penalty of \$1,000,000 per day. The rule ought to contemplate and make allowance for the real world, and if every measure cannot be timely put in place, the Commission should grant an extension, focusing on what can be done in a timely, cost effective manner.

**E. Tailor The Compliance Deadline and Requirements To Unit Characteristics**

In addition to cases in which there is an issue regarding the time needed to meet the requirement, the rule should consider different standards based on the electric generator’s characteristics, including type and capability. Staff’s questions prior to the first set of comments seemed to understand that there may be reasons to have different standards for different types of resources. For example, no matter how much money is spent, a wind turbine cannot turn when there is no wind, and a solar panel cannot produce when there is no sun. Yet the proposed rule makes no allowance for engineering realities, such as those that exist with intermittent resources.

Nor does the rule recognize that capabilities of electric generators may be limited by other factors. For example, Exelon owns and operates the Handley electric generating resource. The plant is 60 years old, using older technology; those are material conditions that go beyond weatherization. Weatherization will not necessarily make a particular electric generator appreciably more reliable, regardless of the effort put forth. No single weatherization measure or

retrofit, or even a discreet set of changes, is going to change its age or fundamental make-up and reasonably ensure that it will operate at any particular time when called upon.. Exelon continues to make significant investments into these older units to improve reliability, but those investments must be balanced with the market opportunities for cost recovery, as well as cost-effectiveness. While Exelon is not suggesting that generators such as Handley be exempt from any remedial measures, the fact remains that there are many units in Texas that are over 50 years old and nearing the end of their useful life. The useful life of those units needs to be considered in determining appropriate weatherization requirements.

The rule ignores the realities of certain existing units and instead applies the same standard across the board, to all existing units and to new builds alike. Weatherization measures are more effective and cheaper to design and install at the outset at a new electric generator than at older plants with the exact same measure. Unlike an existing electric generator, weatherization costs can be included in the decision of whether to build. The only choice for an existing electric generator is whether to exit the market and lose what has already been invested in the plant, or whether to expend currently unknown dollars for weatherization changes that may not be recovered. In addition to pure costs, a new unit will likely be more reliable than a much older unit retrofitted with the same weatherization remedial measure. Therefore, installing specialized weatherization equipment in the new build is unquestionably more cost-effective than retrofitting an older electric generator, but the proposed rule does not look at cost-effectiveness, an omission that at best misses an opportunity, and at worst forces older plants to retire, which would actually degrade reliability.

**F. Clarify Enhanced Reliability**

While “enhanced reliability” sounds positive, it is not clear what this term contemplates, and whether it is designed to meet SB3. Although Staff questions posed before the initial round of comments referred to particular provisions in SB3, the discussion draft is silent on the particulars. To the extent that Staff assumes that the “enhanced reliability” is a seasonal product as required under SB3’s creation of under Texas Utilities Code 39.159, the discussion draft does not appear to satisfy the requirement. There are a number of questions that need to be addressed, including what it is designed to achieve. “Enhanced reliability” needs to cover different seasons, as recent experience has shown. Reliability is not just a winter and summer problem, as it is now clear that it is a year-round issue based on maintenance outages in shoulder months. Although a positive step, this filing alone does not meet all of the requirements of SB3.

**G. Provide for Cost Recovery**

In order for weatherization requirements to be effective on any level, there must be cost recovery. Exelon appreciates Staff’s recognition that cost recovery is an important consideration, in asking the question whether or not there is cost recovery under current market-based mechanisms. The rule should specify that electric generators shall be allowed to recover their costs to meet the new weatherization requirements, even if the method for cost recovery has not yet been established.

Staff asked whether current market mechanisms provided cost recovery and if not, what would provide cost recovery. This cannot be answered as the weatherization requirements are not known until the weather study is finalized. If electric generators do not know the expectations,

they cannot be expected to know what the costs will be. Financial pressures will be heightened if cost recovery is uncertain.

Moreover, the market construct that will exist when the weatherization measures are required to be in place is uncertain. The low system-wide offer cap was recently lowered to \$2,000/MWh, discussion has occurred in the legislature and in PUCT press conferences regarding potentially modifying the high system-wide offer cap and shifting the Operating Reserve Demand Curve. While any of those individual changes would be significant, in an energy-only market such as Texas, those potential changes represent a fundamental shift in the only means that electric generators have to recover their operating costs.

## **SUMMARY**

The key objective should be to define what level of reliability is acceptable on a yearly or multi-year basis. That reliability standard should then be used to guide weatherization measures that should be required based on the weather conditions by region of Texas, based on electric generator characteristics and capabilities, to provide for the most cost-effective enhancement to reliability. The reliability standard can and should be used as an objective guideline for market design and other changes. All the components – generator preparedness, transmission preparedness, and market design – should work together to meet the reliability objective.

If the expectations are unknown, and electric generators are required to absorb significant costs under a rule that imposes one-size-fits-all weatherization requirements with uncertain cost recovery, and that establishes an unrealistic deadline without confidence that an extension would be granted for good-faith efforts in the face of substantial penalties, the economic health of

electric generators may be in question and potentially lead to retirements. So, too, this uncertainty may give pause to new electric generators that are deciding in which market to invest. Failure to implement these effectively will result in further degrading the electric system, instead of enhancing reliability.

## **CONCLUSION**

For the foregoing reasons, Exelon respectfully requests that the Commission modify the proposed rule, consistent with the above.

Respectfully submitted,

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*On behalf of Exelon Generation Company, LLC*